SPACs in Shipping

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Abstract

In this study we examine how Specified Purpose Acquisition Companies (SPACs) were used as a financing tool for companies in the shipping industry in period 2004-2011. We confirm that SPACs focused on acquisitions in the shipping industry have similar characteristics as the population of SPACs that entered U.S financial markets in the same period. When their characteristics differ, SPACs focused on shipping are larger in size than the rest of SPACs, have larger number of underwriters in syndicate, and have a higher rate of merger success. Also, the founders of shipping SPACs tend to be, on average, younger than their counterparts. Additionally, we confirm that shipping companies merge into SPACs for the benefits of acquiring public listing and receiving SPAC's cash. The fact that some SPACs in our sample went private soon after the merger makes us believe that financing motives were more important than public listing motives.

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1. Introduction

This paper examines a subset of Specified Purpose Acquisition Companies (SPACs) that provided financing to companies in the shipping industry worldwide since 2005. This helps to answer the following questions: What are the mechanisms for raising funds through SPACs in general and specifically for the shipping industry? What is the performance of SPAC issued securities for the subset of SPACs that focused their acquisition toward shipping companies? What are the benefits for shipping companies that enter public markets and obtain financing through SPACs?

The paper examines SPACs focusing on the shipping industry for the following reasons: the shipping industry increasingly looks for financing sources in public capital markets.[2] SPACs as a financing mechanism for the shipping industry have been utilized recently and represent not only a financing tool, but also a vehicle to acquire listing in the U.S financial markets. However, the topic is not researched in literature.

SPACs represent a new and original mechanism to raise capital and their structure is similar to blank check companies,[3] which raise capital in public markets through Initial Public Offerings (IPO). The purpose of SPACs is to acquire an unidentified company in the future through a merger. SPACs are modern financing tools in existence since August 2003. Most private companies from different industries worldwide consider them attractive ways to finance

[2] Grammenos and Papapostolou (2012b)

[3] A typical SPAC statement of firms with focus on shipping is "We are blank check company formed for the purpose of acquiring, through a merger, capital stock exchange, asset acquisition or other similar business combination, an unidentified operating business. We intend to focus on identifying a prospective target business in the shipping industry. We do not have any specific merger, capital stock exchange, asset acquisition or other similar business combination under consideration and have not contacted any prospective target business or had any discussion, formal or otherwise, with respect to such a transaction".

and reach public status in acquisitions. In August 2004, Trinity Partners, a SPAC underwritten by HCFP/ Brenner Securities, was the first SPAC to raise money through IPO and merge with a company in the shipping business. In October 2004, soon after the Trinity Partners, Rand Logistics IPO executed the IPO with the intention to merge with a company in shipping or ground transportation. Following them in December 2004, International Shipping Enterprises (a SPAC whose sole focus was merging with other companies in shipping) went public. Following their example, nine additional SPACs decided to focus their mergers and acquisitions on the shipping industry. By 2012, twelve SPACs raised about $1.5 billion in the U.S. capital markets to finance mergers with shipping companies and enable them to access public financial markets. Some of these SPAC shipping deals received great attention in the major business press and represented good examples of the use of SPACs as financing tools for shipping companies.[4]

Existent literature on SPACs documented their institutional characteristics[5] returns to SPAC founders and holders of securities across the time and at announcement dates,[6] determinants of merger,[7] and value creation at merger[8], none of the papers analyze the characteristics of SPACs focused on shipping. In addition, literature on the shipping industry does not provide major research on SPACs role in the industry.

We confirm that SPACs focused on acquisitions in the shipping industry have similar characteristics as the population of SPACs that entered U.S financial markets in 2003-2012. Results show that when their characteristics differ, SPACs focused on shipping are larger in size than the rest of SPACs, have larger number of underwriters in syndicate, and have a higher rate

[4] http://finance.yahoo.com/news/wall-street-transcript-interview-angeliki-225700351.html
[5] Jog and Sun (2007), Boyer and Baigent (2008)
[6] Jog and Sun (2007), Lewellen (2009), Johnson (2010), Lakicevic and Vulanovic (2013)
[7] Lakicevic et.al (2013) and Cumming et.al (2012)
[8] Rodrigues and Stegemoller (2011), Dimitrova (2012), Tran (2010), Datar (2010)

of merger success. In addition, the founders of these types of SPACs, on average, are younger than their counterparts who founded SPACs with focus to merge elsewhere.

Additionally, we confirm findings by Paulsen (2006) that shipping companies merge into SPACs both for the benefits of acquiring public listing and receiving SPAC's cash. The fact that some SPACs in our sample went private soon after the merger makes us believe that financing motives were more important than public listing motives. We propose further investigation in this topic.

The paper proceeds as follows: part two provides an overview of existing literature. Section three explains the data collection process. In section four, we explain in detail the characteristics of SPACs with focus on shipping between 2003 and 2012. Section five calculates returns to stakeholders. Finally, part six concludes the paper.

2. Review of Literature

Literature on shipping finance focuses on issues of financing sources, (either private or public) and on the financial performance of shipping companies in general or during important events. Other studies, related to our paper, focus on the process of Initial Public Offerings and the performance of shipping companies; either at the initial day of the stock issuance, or in the long term. Less related are event studies that examine mergers and acquisitions (M&A) in the shipping industry. We avoid lengthy literature review and focus solely on shipping financing issues in the last decade. Specifically, we relate these issues to SPACs' IPOs and on financing through reverse mergers or SPAC transactions.

Grammenos and Marcoulis (1995) started the stream of literature that focused on equity financing in the shipping industry. They documented changes in financing patterns of shipping companies, where executives of these companies (in the decade prior to 1995) had frequent

access to public capital markets which allowed them to raise larger amounts of money than in the past. In addition, they stated that the motives of increased equity financing are not primarily capital structure adjustments but acquisition of new vessels.

Paulsen (2006), similarly to Grammenos and Marcoulis (1995), acknowledges the increased variety of shipping financing methods. He concludes that the three major ways of financing in the prior decade were: IPOs, high yield debt issuance, and reverse mergers with public shell companies or with SPACs. Although their paper does not elaborate on SPACs, it offers two arguments that SPACs are a beneficial corporate innovation for shipping companies. First, by merging with a SPAC, the shipping company is receiving the benefits of public listing without the time and cost commitment of going public. Second, the shipping company is also receiving SPAC's cash from pro-merger investors.

Recently, Grammenos and Papapostolou (2012a) reviewed the literature on equity financing of the shipping industry and they reported that shipping companies choose to enter public equity markets for variety of reasons. They are: the difficulties for a traditional banking sector to support growth opportunities, the emergence of a new generation of shipowners (CEOs) with different academic backgrounds and views on ownership, and the easiness of raising capital for some projects that were recently introduced to the investment community by the sponsors/investment banks. Given that within Table 20.4 Grammenos and Papapostolou (2012a) list a few shipping companies that provided equity/cash financing through SPACs, we infer that they acknowledge SPACs as financing alternatives for shipping companies in the early 2000's.

Finally, Grammenos and Papapostolou (2012b), in analyzing price reactions of shipping companies around their respective IPO dates, found that underpricing probability can be inferred from information provided by companies when filling out proper prospectuses forms.

SPAC finance literature starts with Jog and Sun (2007), Boyer and Baigent (2008). They explain institutional characteristics of SPACs and their deal structure. Jog and Sun (2007) also examine returns to founders of SPACs and state that managers of SPACs who successfully execute mergers receive higher returns on their initial investment (up to 1900%). Boyer and Baigent (2008) explain the reverse merger nature of SPACs and explain why SPACs can be considered an entrance into private equity for small investors. Lewellen (2009) calculates returns to shareholders at different stages of a SPAC's life and shows their popularity. He proposes SPACs as new class of financial assets. Jenkinson and Sousa (2011) examine merger payoffs of SPACs and conclude that half of the deals are value destroying. Lakicevic and Vulanovic (2013) reexamine returns to investors, focusing on all three types of securities that SPACs issue: units, common shares and warrants. They found divergence between stock and warrant returns around important corporate announcements. Recently, Cumming (2012) and Lakicevic et al. (2013) examine merger determinants for SPACs and find that trading patterns of institutional investors, (Cumming 2012) underwriters' choices, and geographical concerns all (Lakicevic et.al 2013) impact the probability of SPAC merger. To our knowledge, no study examines the use of SPACs as a financing tool or as an exchange listing mechanism for companies in shipping. We fill the gap and provide additional evidence on characteristics of SPACs that focus their mergers on shipping companies and on their performance.

3. Data

The data on SPAC characteristics is hand collected from The Electronic Data Gathering, Analysis and Retrieval (EDGAR) database maintained by The Security and Exchange Commission (SEC). SPACs that register with the SEC are legally obliged to report all issuance activities and any major corporate changes to them. We collected data on relevant pre-IPO

characteristics of SPACs from their initial registration forms (S-1 or F-1) and updated the data with information reported in their B424 forms prior to the IPO. In addition, we checked 8-K forms to collect reported changes with the SEC after the IPO. Our sample represents population and consists of 193 SPACs that entered U.S financial markets from August 2003 to December 2012.

We collect data on pricing of SPAC's units, common shares, warrants, and returns from CRSP, Bloomberg, and Yahoo. First, we check whether pricing and return information on SPAC securities is available at the CRSP. If the return data is available, we keep the data. In the absence of returns and pricing of securities records we look into historical prices on Bloomberg. Finally, we use historical prices available through Yahoo Finance if unavailable through previous sources. We cross check our pricing information with weekly reports on SPACs produced by Morgan Joseph.[9]

Finally, data on merger size is obtained from Thompson One reporting on the mergers and acquisition. The data obtained from Thompson Reuters is cross checked with available post-merger reporting by new companies to the SEC. If discrepancies exist in the size of the deal, we use values provided to the SEC.

4. SPACs as a financing mechanism for the shipping industry

This section explains detailed properties of SPACs from their formation until merger consummation and documents their institutional characteristics.

4.1. SPACs as a financing mechanism and a vehicle to access public markets

A SPAC is a creative financial structure that raises funds in capital markets through the IPO process with the sole purpose of using the funds to finance acquisition of unknown existing

[9] http://mjta.com/i/SPAC_Weekly.pdf

companies within a limited time[10]. Figure I outlines the corporate life of SPACs in detail. To better explain the nature of SPACs, we divide their limited corporate life into four stages, namely: Pre-IPO stage, The IPO, Pre-Merger, and Post-merger. This division into four stages is similar to the approach in Lewellen (2009).

In the first stage, SPACs' managers form a blank check company and buy all the shares valuing blank checks at $25,000 on average.[11] Once the blank check is formed in a coordinated effort with the lead underwriter, managers file proper registration S-1 forms[12] where they outline all institutional characteristics of the issuing entity (such as managerial characteristics, securities composition, underwriting characteristics and legal issues). After filing out the registration forms, underwriters act as promoters for SPAC securities. By filing the final prospectuses they determine the date of the IPO.

The IPO is the second stage in the life of a SPAC where underwriters use units as a financing security. A unit is a security that consists of a combination of common shares and warrants. For the majority of SPACs, buyers of units are outside investors (either retail or institutional), but sometimes SPAC founders also buy a certain number of units to show increased commitment to success. In addition to buying units, SPAC founders also often purchase additional warrants to increase their commitment. Right after the IPO, the proceeds raised are deposited in trust account with credible financial institutions. Trading with SPAC units

[10]In their final prospectuses before the IPO underwriters specify the period in which SPAC has to merge with another company. Usually that period is 24 months after the IPO with possible extension of 6 months. If the merger does not happen in that time SPAC is liquidated.

[11] Lakicevic and Vulanovic (2013), report that average share cost for SPAC founders is $ 0.047. Or said differently, approximately $1 buys around 20 pre IPO shares of SPACs. The excerpt from final prospectus filed by International Shipping Enterprises says" Our existing stockholders paid an aggregate of $25,000, or approximately $0.004 per share, for their shares and, accordingly, you will experience immediate and substantial dilution from the purchase of our common stock."

[12] SPACs file S-1 Form unless they are foreign issuers when they file F-1 form

starts on the listed exchange. Once the underwriters provide information on the purchase of overallotment units by investors in financial markets, the issuing units are disbanded and separate trading of SPAC common shares and warrants start. After the IPO, the SPAC becomes public company, with almost 100% of cash on its balance sheet and with liquid securities in capital markets. These features of SPACs enable private companies to think of the SPAC as a possibility to obtain financing and get access to the U.S financial markets simultaneously.

In the third stage, while SPAC securities are trading, managers seek proper acquisition targets to merge with. SPAC has a limited amount of time to close the merger deal. The limit is, on average, 2 years after the IPO date. At some point, SPAC managers announce the acquisition target and sign a letter of merger intent. To comply with exchange standards, the market value of the target must be at least 80% of the SPAC's net asset value.[13]In order for a merger to happen, the SPAC's shareholder has to approve it through a voting process. If the investors holding a higher number of shares than the threshold defined at the IPO decide to vote against the merger, the SPAC has to liquidate. In the case of liquidation, investors receive their money back from the trust account.

Finally, if investors approve the merger, SPACs continue their corporate life in different ways. For some SPACs, a new company created in the merger does not change its previous name or ticker and continues trading in the U.S capital markets. Other SPACs will continue trading

[13] The excerpt from prospectuses form of International Shipping Enterprise that defines target size "The initial target business that we acquire must have a fair market value equal to at least 80% of our net assets at the time of such acquisition. The fair market value of such business will be determined by our board of directors based upon standards generally accepted by the financial community, such as actual and potential sales, earnings and cash flow and book value. If our board is not able to independently determine that the target business has a sufficient fair market value, we will obtain an opinion from an unaffiliated, independent investment banking firm which is a member of the National Association of Securities Dealers, Inc. with respect to the satisfaction of such criteria."

outside the U.S and execute mergers with foreign companies. Some SPACs get delisted and become private entities again. In all cases, a merger means "payday" for underwriters and SPAC founders as they collect underwriting fees (if they were deferred) and issue warrants (unless there were some alterative agreements during the merger).

4.2. Summary statistics

Table 1 presents summary statistics. In panel A, we present relevant characteristics of population of SPACs from August 2003 to December 2012. In total, 193 SPACs entered U.S capital markets; which represent almost $24 billion, with the average SPAC raising $ 124.41 million. On average, 5.91 (median 5) managers form a SPAC, and at the formation date they are 50.65 years old. At the IPO day, founders of SPAC on average purchase $2.53 million of warrants; and they deposited the proceeds in the trust account. These warrants are exercisable only when the SPAC executes the merger. In the case that SPAC liquidates proceeds from warrant purchases are returned to SPAC shareholders.

Literature[14] recognizes underwriters as the creators of modern SPACs. On average, they form a syndicate of 3.41 members at the IPO. Across the sample, the total underwriters' compensation is 6.77% of the gross proceeds at the IPO. However, on average, 2.28% of that compensation is collected conditionally on the success of the merger.

Looking at IPO technical characteristics, an average SPAC price unit is $8.48 (where a unit consists of one share and 1.28 warrants). The exercise price of these warrants is on average $6.49 and their exercise is conditional on the success of the merger.

According to institutional features of SPACs, specified in the pre-IPO prospectuses with the SEC, a certain number of shareholders need to approve the merger. SPACs specify a

[14] http://www.earlybirdcapital.com/spacs.html

maximum number of shareholders that could vote against the merger or let the merger go on. On average, that threshold is 34.68% (mode 20%) of shareholders.

In panel B, we divide the SPAC population in two subsamples based on their acquisition intent stated in filing prospectuses. Our focus is on the first subsample which presents characteristics of 12 SPACs that either announced, at the IPO, their intention to merge with companies in the shipping industry. We compare the characteristics of SPACs with a focus on shipping to the SPACs with a focus elsewhere.

In many instances, characteristics of SPACs that focus on shipping are similar to general characteristics of SPACs reported in summary statistics. However, our data shows small discrepancies between the two groups in some characteristics.

SPACs in shipping tend to raise similar amounts of money at the IPO date ($125.85 million vs. $124.30 million) to the SPACs with a focus elsewhere. SPAC founders in the shipping industry tend to be younger than the founders of remaining SPACs (47.00 years vs. 50.89 years). More founders join to work on SPAC in shipping than otherwise on average (6.00 vs. 5.90).

SPACs with focus on shipping have on average one more underwriter in a syndicate than other SPACs (4.08 vs. 3.37) , but underwriters of SPACs with focus in shipping charge slightly lower total fee (6.70% vs. 6.77%) with difference arising from the smaller portion of total fee that underwriters defer (1.69% vs. 2.32%). SPACs with focus on shipping have a higher issuing price of its units ($ 8.68 vs. $8.12) and their warrants have higher exercise prices ($7.04 vs. $6.46). Overall, we document that SPACs with a focus on shipping share the characteristics of the remaining SPACs that entered the US capital market in the period 2003-2012.

4.3 Additional Characteristics of SPACs with Focus on Shipping

Table 2 lists all SPACs with focus on shipping and documents their additional institutional characteristics in terms of listing exchange choices, depositing institutions and underwriting characteristics.

Three SPACs focus on shipping/ground transportation almost concurrently entered the U.S capital markets in the last quarter of 2004, namely Trinity Partners, Rand Acquisition Company and International Shipping Enterprises. We choose the latest as representative of SPACs in shipping for two reasons. First, International Shipping Enterprises had clear intentions to seek acquisition in shipping and all its managers had prior involvement in shipping. Second, some founders of International Shipping Enterprises had experience in another SPAC such as Navios Maritime in 2008 which represents the largest SPAC (by size and focus on the shipping industry).[15] Navios Maritime raised $253 million at the IPO with the intention to acquire company in shipping business.

SPACs were considered speculative investments and it took them two years to obtain listing on the formal stock exchange. Prior to that, they were trading in over the counter markets. Panel A, Table 2, reports exchanges that were listing SPAC securities in the observed period. The first four shipping SPACs listed their securities on the OTCBB markets. Five SPACs had their shares trading at AMEX, and Navios was one of the first SPACs (in general and the only among SPACs focusing on shipping) to gain listing at NYSE. Two recent SPACs with a focus on shipping listed their shares on NASDAQ.

[15] Another distinguishing feature that we believe provides a competitive advantage is the proven ability of our management to acquire and grow businesses. Angeliki Frangou, our Chairman and Chief Executive Officer, was also the Chairman and Chief Executive Officer of International Shipping Enterprises, Inc., or ISE, a blank check company that raised $196.65 million in December of 2004. In August of 2005, ISE acquired Navios Holdings for $607.5 million.

Panel B, Table 1 reports that, on average, 98% of proceeds from the IPO were deposited in an escrow accounts with a credible financial institution. The depositing of IPO proceeds in the escrow accounts is an innovative feature used by SPAC founders to convince investors and regulators (SEC) that money raised in the IPO serves to finance acquisition. This feature separates SPACs from typical reverse merger companies. In Panel A, Table 2, we show that Rand Logistic was the SPAC with lowest percentage of proceeds deposited in the trust account, namely 86%. Aquasition, the most recent SPAC with focus on shipping, deposited 103% of IPO gross proceeds in the trust account. SPACs can deposit more than 100% of IPO proceeds when founders commit and purchase additional warrants and/or units at the IPO and deposit the proceeds in the trust account. Panel A, Table 2 shows that SPACs in shipping deposited its proceeds most often with JPMorgan (five SPACs depositing funds).

The most frequent lead underwriter for SPACs with focus on shipping was Maxim Group, one of the pioneers of SPAC underwriting. Additionally, lead underwriters were Morgan Joseph, Citigroup, JPMorgan, Sunrise Securities, EarlyBirdCapital, BB&T Capital Markets and Lazard. Since the first SPAC was underwritten by EarlyBirdCapital, we look into syndicate membership to discover its presence. We found that 6 SPACs with a focus on shipping had EarlyBirdCapital as a member of the syndicate. Lakicevic et.al (2013) shows that the participation of EarlyBirdCapital in the underwriting process increases probability of merger execution.

Underwriting compensation characteristics show that total compensation varies and almost monotonically decreases over time. The literature explains that reasons for decreasing underwriters' compensation arise primarily from the underwriters' willingness to appease SPAC investors at the IPO. Besides the first three SPACs, all remaining deals were structured to defer a part of underwriters' compensation until merger outcome, with the mode of deferred

compensation being 3% of gross proceeds.[16] For the subsample of SPACs with shipping focus, the number of underwriters in syndicate ranges from 2 to 9.

Variable threshold, which represents the minimum percentage of shares able to reject the merger, also has a wide range (20% to 90%). This threshold has been increasing over time and partially captures changes in the SPAC structure.[17] Starting at only 20%, it doubled to 40% for SPACs like Navios Maritime by 2008, and now has increased up to 90% for the most recent SPACs (which use some features of tender offer for merger deals).

Variables WI and UI represent the number of warrants and units purchased by the founders of SPACs at the IPO. For all but four SPACs, their founders purchased warrants at the IPO. The upfront purchase of warrants on behalf of SPAC founders is important; it shows their increased commitment to the success of finding the proper company to merge with.

Before warrant purchases, the only monetary commitment of SPAC founders to the company is the purchase of discounted shares. Additionally, proceeds of warrant purchases by SPAC founders are deposited in the escrow accounts, so that in the case of liquidation, shareholders get back their investment. Therefore, upfront warrant purchases represent increased "skin in the game" on behalf of SPAC founders. Only for one SPAC in our sample founders did not purchase warrants or units prior to the IPO date. The largest upfront purchase of warrants

[16] Thompson (2010) reports similar level of deferred compensation.

[17] Since 2010, in response to various pressures such as: institutional activism, financial crisis and massive liquidation due to shareholders disapproval of merger, SPAC founders increased the threshold needed to disapprove merger . The excerpt from Seanergy prospectuses enlighten this " We will proceed with a business combination only if a majority of the shares of common stock voted by the holders in this offering are voted in favor of the business combination and public shareholders owning less than 35.0% of the total number of shares sold in this offering exercise their redemption rights described below. Our threshold for redemption rights has been established at 35.0% to reduce the risk of a small group of shareholders exercising undue influence on the approval process. However, a 20.0% threshold is more typical in offerings of this type and such lower threshold permits the holders of a smaller number of shares to prevent a transaction they deem to be undesirable from being consummated."

was in the case of Seanergy, where founders purchased 16,016,667 warrants at the price of $0.90 per warrant.[18]

In four SPACs with a focus on shipping, founders bought units as well. Similarly, like upfront purchase of warrants, the purchase of units increases commitment of SPAC founders in the success of the merger.[19] Units purchased by founders have all the features of regular units purchased by investors, except one. These founders' units do not have any right to liquidate/distribute funds when the SPAC fails to consummate business combination. Panel A in Table 2 shows the warrant exercise price for each SPAC, its dynamics, and the number of warrants in one unit at the IPO. We observe that the warrant exercise price is lower than the unit issuance price for all but two SPACs. We also observed that three of the earliest SPACs (in shipping) issued their units as a combination of one common share and two warrants, while all remaining packaged unit as a combination of one share and one warrant. This decrease in the number of warrants in a unit is a response to the "warrant overhang" issue described by Miller (2008), where the issuance of two in the money warrants leads to dilution for SPAC shareholders.

Panel B in Table 2 documents the timeline for SPACs in shipping and reports on their IPO dates, announcement of merger dates, and merger or liquidation dates. The timeline is important

[18] Here is the description of warrant purchases from Seanergy's final prospectuses before the IPO "Prior to the consummation of this offering, all of our executive officers purchased an aggregate of 16,016,667 warrants, which we refer to as insider warrants, from us at a price of $0.90 per warrant ($14,415,000 in the aggregate) in a private placement made in accordance with Regulation S under the Securities Act of 1933. All of the insider warrants purchased by our executive officers will be identical to the warrants in the units being offered by this prospectus except that none of the insider warrants will be transferable or salable until after we complete a business combination, are not subject to redemption if held by the initial holders thereof or their permitted assigns and may be exercised on a cashless basis if held by the insiders or their designees.

[19] Here is the description of unit purchase from Oceanaut's prospectus "Excel Maritime Carriers Ltd. (NYSE: EXM), our corporate shareholder, has agreed to purchase from us, in a private placement that will occur no less than one business day prior to the closing of this offering, an aggregate of 1,125,000 insider units, at $8.00 per unit, each unit consisting of one share of our common stock and one warrant to purchase one share of our common stock at a per-share exercise price of $6.00."

because the SPACs themselves determine a deadline for the merger in order to comply with exchange listing requirements. The prospectuses specify the period in which SPACs have to execute the merger and indicate the agreement with listing exchanges (on average it is 2 years). SPACs in shipping had IPO's in all years but 2009 and 2010. Variable AnnDays measures the number of days between the IPO and the announcement of the merger. It is important for merger success outcomes that SPAC managers are able to find acquisition targets in a timely manner. Lakicevic et.al (2013) found that the timing of an announcement influences merger outcomes and that SPACs have a higher probability of executing a merger when they announce their intention to merge early on. On average, it takes 357 days for SPACs to announce a merger; with 8 of them being able to execute merger (only two of them fail to merge and liquidate instead).

5. Returns to SPAC stakeholders with a focus on shipping

In this section, we calculate returns to all stakeholders of shipping SPACs.

SPACs as a corporate entity have three groups of stakeholders: investors, underwriters, and SPAC founders. The investors' structure of SPACs usually changes around merger dates and prior investors often sell their shares or exercise warrants soon after the merger event.[20] The reasons for getting out of SPAC shares may vary. Mitchell and Pulvino (2011) name the liquidity issue of hedge funds during the financial crisis that enabled them to enter into arbitrage strategies. Hedge funds represent one of the largest groups of SPAC investors. SPAC literature calculates returns around merger events for equity investors. We attempted to estimate returns for all three groups of stakeholders for shipping SPACs. Also, given the changing structure of investors after the merger, we estimated returns to investors that purchased their shares after merger. These estimations helped to enlighten the incentives of stakeholders and to provide a guide for future investors in shipping SPACs.

[20] Explain, hedge fund changes

In Table 3, we calculated buy and hold returns for all three groups of stakeholders. First, we calculated absolute returns for every shipping SPAC under the assumptions we describe below. Second, we formed equally weighted portfolios in respect to the number of units for SPACs in the period from their IPO until September 25th, 2013.

Regarding their corporate status as of September 2013, ten out of twelve shipping SPACs had successfully merged and seven of them are still actively trading shares. Two SPACs delisted and went private, two liquidated, and one (Aquasition) recently announced that it is considering a merger.

The procedure of return calculation went as follows. First, we calculated the absolute return to investors for every individual SPAC. The calculation was as follows. We assumed that an investor purchases one unit at the IPO date for each SPAC and holds that unit until September 25th 2013. If SPAC was trading on September 25th 2013, we recorded the mid-price. In the event that a SPAC ceased trading due to delisting from exchange, (as was the case for Nautilus Marine Acquisition) we use the last available price. In a case of a SPAC liquidating earlier, we record the liquidation value of shares returned to investors as the relevant price. Final, we calculated the value of unit for each individual SPAC by adding or subtracting the warrant price from the current price.[21] The obtained returns are not adjusted to any relevant benchmark nor adjusted for inflation. These are simple dollar returns on investment.

Table 4 shows that the average simple "Buy and Hold "return for portfolio of SPACs is positive 3%. Five SPACs exhibit positive absolute buy and hold returns (up to 206%), while four of them exhibit negative returns(from -95%). Three SPACs with focus on shipping returned

[21] Morgan Joseph an investment bank that is one the major underwriters and market makers in SPAC markets , while creating their The Morgan Joseph Acquisition Company **Index**, MJACI, quoted on Bloomberg, calculates SPAC returns in the same manner.

investors the complete initial amount invested. This finding confirms Rodrigues' and Sousa's (2009) findings that investing in a SPAC is like "flipping a coin".

But the calculation of return on units is not straightforward because of the unit's structure. At the IPO, unit holders are given the right to exercise their warrants anytime between the day after the merger and five years after the IPO. To address this exercise right feature, we make additional calculations and create variable "Maximum Buy and Hold Unit Return." This variable is calculated in the following manner. First, we record the share price at September 25th 2013, which is our cutoff date. We assume that the SPAC investor exercised the warrant at the most favorable price in the period between the merger and September 25th 2013. Unit price is than maximum value of warrant added to recorded share price. If the return to SPAC investors is calculated in this manner, it shows that the simple return on portfolio is 46% with the range of (-95% to 470%).

Table 4 documents complete compensation to underwriters adjusted for merger outcomes of SPACs.

As reported previously, underwriters of SPACs in shipping received compensation at two different points in time.[22] First, they received part of their compensation at the date of the IPO which amounted to 4.43% of gross proceeds. The second part of an underwriter's compensation was1.69% of gross proceeds on average; this is deferred and paid only if a merger happens. We recalculated the underwriters' compensation after the merger. Since only two SPACs in the

[22] An excerpt from Seanergy prospectus defining deferred underwriter's compensation "Does not include deferred underwriting compensation in the amount of 2.25% of the gross proceeds, or $0.225 per unit (up to $4,950,000), payable to Maxim Group LLC only upon consummation of a business combination and then only with respect to those units as to which the component shares have not been redeemed. The deferred underwriting compensation will be equal to 3.75% of any of the gross proceeds from the sale of units acquired pursuant to the exercise of the underwriters' over-allotment option, or $0.375 per unit, for total deferred underwriting compensation of up to $6,187,500 if the over-allotment option is exercised in full."

sample were unable to execute the merger, the average compensation decreased slightly to 6.12% which is typical of IPO compensation.

Finally, we estimate returns for SPAC founders and acknowledge that information from merger negotiations, especially the amount of forfeited ownership during merger negotiation, is necessary to make the estimation exact. We proceed with the calculation of returns to SPAC founders assuming that they did not forfeit any share during the merger negotiation or purchase any warrant in addition to the warrants purchased at the IPO.

Founders of average SPACs typically have 20% ownership bought at the average price of $0.047 per share. This structure of SPACs creates significant dilutions for new investors at the IPO. New investors often complain that SPAC founders need to contribute additional capital to SPACs. In our sample, they contribute additional capital in two ways; by buying warrants or by purchasing SPAC units prior to the IPO. In both cases, proceeds from a manager's purchases go to escrow accounts and SPAC managers could only use them if the merger was successful. Table 3 reports that SPAC founders pre-purchase 2.87 million of warrants at the price of $ 0.49. In addition, they purchase 0.29 million of units pre-IPO on average.

To calculate returns to SPAC founders, we take the price of unit calculated as of September 25th 2013 for each SPAC in the sample and divide this with the initial investment per unit on behalf of SPAC founder. If we assume that founders exercised their warrants fully at the average price between the merger and the cut-off period, the average SPAC founder received back $154 on $1 invested. Although this may sound high, we need to remember that, for four SPACs in the sample, founders do not commit any additional capital besides approximately $25000. With such capital, they receive 20% equity of SPAC at the IPO. Given the high success of SPACs

with focus on shipping to execute the merger, these miniscule initial investments provide enormous returns.

6. Conclusion

We described characteristics of SPACs that focus on merging with companies in the shipping industry. We documented that the shipping industry uses SPACs to obtain access to the U.S. financial capital markets, and as a source of financing. We confirm findings in Grammenos and Marcoulis (1995) and show that when SPACs are used as sources of financing shipping companies use the funds to purchase new vessels.

Observing their institutional characteristics, SPACs that focus on shipping are not significantly different than the rest of SPACs that entered U.S capital markets recently. However, SPACs with a focus on shipping tend to be underwritten by a larger syndicate and are more successful in executing mergers.

Finally, we calculate simple returns to investors and SPAC founders. On average, the simple return to SPAC investors (unadjusted for inflation and benchmark) is 3%. While this reported return is not a spectacular one, SPAC founders fare way better. In a relatively realistic scenario, their estimated return is 154 times their initial investment. Similar returns (of lower magnitude) are reported in Jog and Sun (2007).

Figure1: Stages in life of SPAC

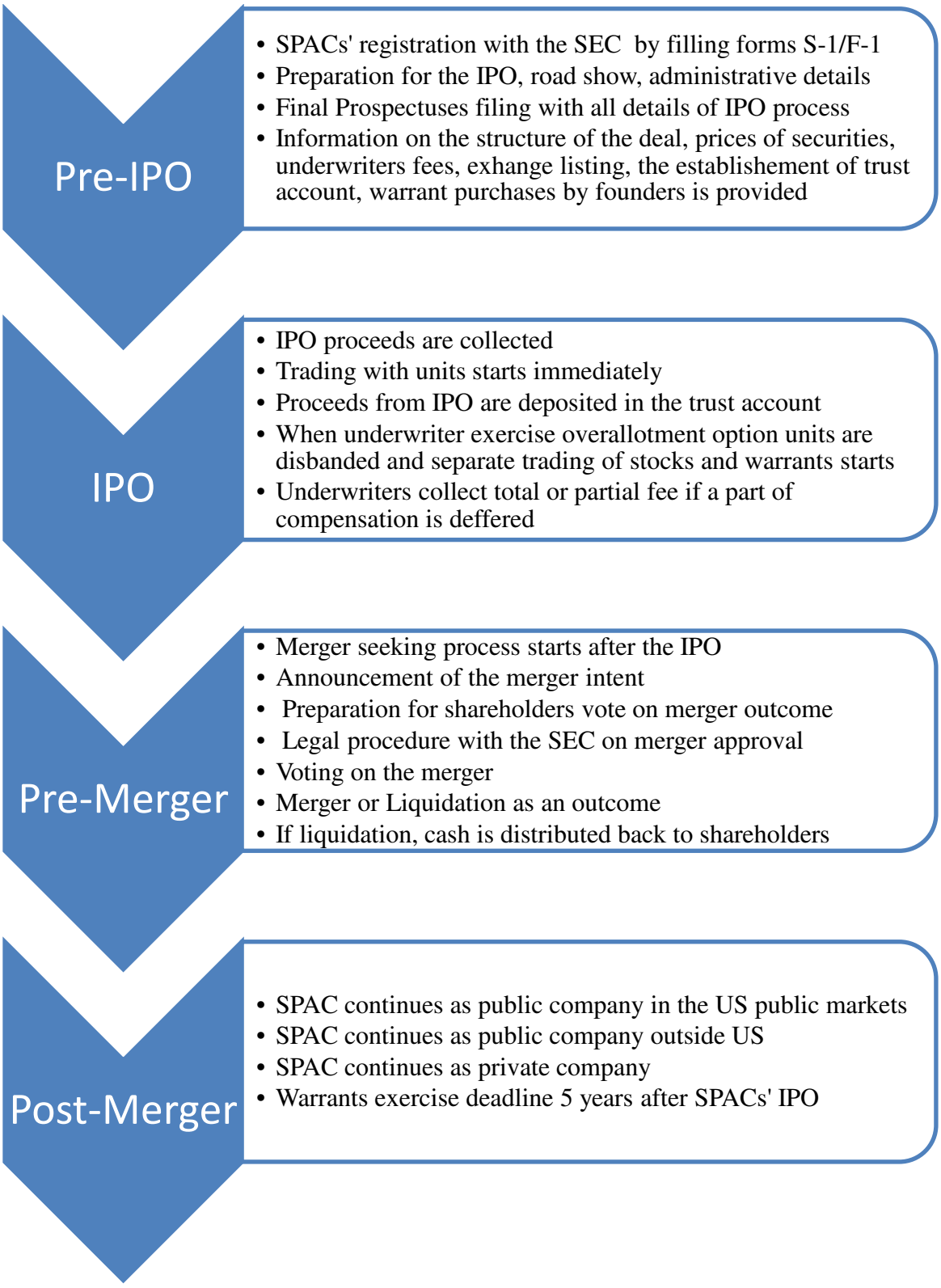

Table 1.
Panel A presents relevant SPAC characteristics in period 2003-2012 for every SPAC that went public. Panel B presents characteristics of SPACs for subsamples. First subsample is on SPACs that focus on shipping and second is remaining SPACs

Panel A

	SPACs population 2003-2012				
Variable	Obs	Mean	Std. Dev.	Min	Max
Number of SPAC Founders	193	5.91	1.86	2.00	13.00
Average Age of SPAC Founders	193	50.65	6.88	4.00	63.75
UNDgrosspr	193	4.11	1.71	1.00	9.00
Deffered Underwriters Compensation	193	2.28	1.52	0.00	5.40
Total Underwriters Compensation	193	6.77	1.49	2.25	10.00
Number of Underwriters in Syndicate	193	3.41	1.77	1.00	10.00
Redemption Threshold	193	34.68	23.25	20.00	94.80
Warrant Commitment by Founders	193	2.53	2.78	0.00	15.60
Gross Proceeds at the IPO	193	124.41	148.04	7.88	1035.00
Proceeds Deposited in Trust Accounts	193	0.97	0.04	0.85	1.02
Warrant Strike Price	193	6.49	2.08	3.00	12.00
Number of Warrans per Unit	193	1.28	0.46	0.50	2.00
Unit Offer Price	193	8.16	1.61	6.00	10.10

Panel B

	SPACs with focus on shipping					Remaining SPACS				
	Obs	Mean	Std. Dev.	Min	Max	Obs	Mean	Std. Dev.	Min	Max
Number of SPAC Founders	12	6.00	1.65	3.00	8.00	181	5.90	1.87	2.00	13.00
Average Age of SPAC Founders	12	47.00	3.63	41.40	52.25	181	50.89	6.98	4.00	63.75
UNDgrosspr	12	4.43	1.85	2.00	7.00	181	4.09	1.70	1.00	9.00
Deffered Underwriters Compensation	12	1.69	1.39	0.00	3.50	181	2.32	1.52	0.00	5.40
Total Underwriters Compensation	12	6.70	1.40	3.45	9.00	181	6.77	1.50	2.25	10.00
Number of Underwriters in Syndicate	12	4.08	2.47	1.00	9.00	181	3.37	1.71	1.00	10.00
Redemption Threshold	12	36.08	25.66	20.00	90.00	181	34.59	23.15	20.00	94.80
Warrant Commitment by Founders	12	2.87	4.75	0.00	16.60	181	2.57	2.81	0.00	15.60
Gross Proceeds at the IPO	12	125.85	87.79	7.87	253.00	181	124.30	151.34	15.25	1035.00
Proceeds Deposited in Trust Accounts	12	0.98	0.05	0.86	1.03	181	0.97	0.05	0.85	1.02
Warrant Strike Price	12	7.04	2.35	5.00	11.50	181	6.46	2.06	3.00	12.00
Number of Warrans per Unit	12	1.25	0.45	1.00	2.00	181	1.29	0.46	0.50	2.00
Unit Offer Price	12	8.68	1.78	6.00	10.10	181	8.12	1.60	6.00	10.10

Table 2:
In Panel A, major characteristics for every individual SPAC with focus on shipping are listed. IPO date = date of initial public offerings, GP = the amount of money raised at the IPO in millions, Ticker = the original trading ticker at the IPO, Exchange = the listing exchange for SPAC's unit after the IPO, Proc = the percentage of proceeds deposited in the trust account, depositing = institution with which funds are deposited, Lead = the lead underwriter at the IPO. EBC = whether the EarlyBirdCapital was one of the underwriters, UDF = amount of deferred underwriter's fee until the mergers outcome, UTOT = total underwriters compensation, U#= number of underwriters in syndicate, THR= the maximum percentage of shareholders that can vote against the merger, otherwise SPAC is liquidated, WI = amount of warrants purchased by SPAC founders prior to the IPO in millions, UI= amount of units purchased prior to the IPO in millions, WSP= warrants strike price in dollars, WPU= number of warrants per unit, UIS = price of unit at the IPO, WY= warrant overhang ratio calculated as UIS/WSP

Panel A

Name	IPO_Date	GP	Ticker	Exchange	Proc	Depositing	Lead	EBC	UDF	UTOT	U#	THR	WI	UI	WSP	WPU	UIS	WY
Trinity Partners	8/2/2004	7.87	TPQC	OTC	100.0%	American Stock T&'	HCFP/Brenner Sec.	No	0.00	8.00	1.00	20	0.00	0.00	5.00	1.00	10.10	2.02
Rand Acquisition Corporation	10/27/2004	27.60	RLOG	OTCBB	86.0%	JPMorgan	Early Bird Capital	Yes	0.00	9.00	4.00	20	0.00	0.00	5.00	2.00	6.00	1.20
International Shipping Enterpri	12/10/2004	196.65	NM	OTCBB	91.5%	JPMorgan	Sunrise Securities Cor	No	0.00	7.00	6.00	20	0.00	0.00	5.00	2.00	6.00	1.20
ALDABRA	2/18/2005	55.20	GLDD	OTCBB	102.8%	JPMorgan	Morgan Joseph	Yes	0.00	7.00	2.00	20	1.57	0.00	5.00	2.00	6.00	1.20
Star Maritime Acquisition	12/15/2005	188.68	SBLK	AMEX	100.0%	Lehman Brothers	Maxim Group	Yes	2.00	7.00	5.00	33	0.00	1.23	8.00	1.00	10.00	1.25
Global Logistics Acquisition	2/15/2006	88.00	GLA	AMEX	96.0%	The Bank of NY	BB&T Capital Market	Yes	3.00	7.00	3.00	20	1.75	0.00	6.00	1.00	8.00	1.33
Energy Infrastructure Acquisiti	7/20/2006	209.25	EII	AMEX	100.0%	Lehman Brothers	Maxim Group	No	3.00	6.00	8.00	30	0.08	0.83	8.00	1.00	10.00	1.25
Oceanaut	3/1/2007	150.00	OKN	AMEX	102.4%	JPMorgan	Citigroup	Yes	3.00	7.00	2.00	30	2.00	1.13	6.00	1.00	8.00	1.33
Seanergy	9/28/2007	231.00	SHIP	AMEX	100.0%	Deutche Bank	Maxim Group	No	2.25	7.00	9.00	35	0.75	0.00	6.50	1.00	10.00	1.54
Navios Maritime	6/25/2008	253.00	NNA	NYSE	99.1%	Marfin Popular Bank	JPMorgan	No	3.50	7.00	3.00	40	7.60	0.00	7.00	1.00	10.00	1.43
Nautilus Marine Acquisition	7/15/2011	48.00	NMAR	NASDAQ	101.0%	JPMorgan	Maxim Group	Yes	1.00	3.45	3.00	88	3.18	0.00	11.50	1.00	10.00	0.87
Aquasition	10/26/2012	55.00	AQU	NASDAQ	103.0%	Barclays	Lazard	No	2.50	5.00	3.00	90	3.37	0.34	11.50	1.00	10.00	0.87

In Panel B, characteristics of SPACs post IPO are described. IPO_Date = date of the IPO, Expiration= last day until merger has to be consummated otherwise SPAC liquidates, Ann_date= date of the merger plans announcement, AnnDays_IPO= number of days between the IPO and merger announcement, Merger/Liq Date = date on which SPAC either merged or liquidated, Days= number of days between the announcement of merger and merger outcome, Status= current status of SPAC, MergerSize= the size of merger deal in millions of $, GP = amount of cash raised in the IPO in $ millions. Ratio = ratio of the size of the IPO and merger value

Panel B

Name	IPO_Date	Expiration	Ann_date	AnnDays_IPO	Merger/Liq Dat	Days	Status	MergerSize	GP	Ratio
Trinity Partners	8/2/2004		1/18/2005	169.00	12/15/2005	331.00	Merged	7.00	7.87	0.89
Rand Acquisition Corporation	10/27/2004		9/6/2005	314.00	3/6/2006	181.00	Merged	45.17	27.60	1.64
International Shipping Enterpri	12/10/2004		3/1/2005	81.00	8/25/2005	177.00	Merged	594.37	196.65	3.02
ALDABRA	2/18/2005		6/20/2006	487.00	12/26/2006	189.00	Merged	168.00	55.20	3.04
Star Maritime Acquisition	12/15/2005		1/12/2007	393.00	11/27/2007	319.00	Merged	345.20	188.68	1.83
Global Logistics Acquisition	2/15/2006		5/11/2007	450.00	2/12/2008	277.00	Merged	75.00	88.00	0.85
Energy Infrastructure Acquisiti	7/20/2006	11/14/2008	12/3/2007	501.00	11/13/2008	346.00	Liquidated		209.25	0.00
Oceanaut	3/1/2007	4/14/2009	10/15/2007	228.00	4/6/2009	539.00	Liquidated		150.00	0.00
Seanergy	9/28/2007		5/22/2008	237.00	8/26/2008	96.00	Merged	395.28	231.00	1.71
Navios Maritime	6/25/2008		4/8/2010	652.00	5/25/2010	47.00	Merged	457.00	253.00	1.81
Nautilus Marine Acquisition Co	7/15/2011	2/15/2013	9/3/2012	416.00	1/7/2013	126.00	Merged	86.50	48.00	1.80
Aquasition	10/26/2012	10/25/2014					Seeking		55.00	0.00

Table 3

This table describes relevant characteristics of SPAC stakeholders: underwriters, investors and founders. In Panel A all relevant information necessary to calculate their absolute returns is presented. Panel B calculates absolute returns for SPAC stakeholders.

Panel A

Variable	Obs	Mean	Std. Dev.	Min	Max
Underwriter's compensation at the IPO	12	4.43	1.85	2.00	7.00
Deferred Underwriters Compensation Adjusted	12	1.19	1.37	0.00	3.50
Total Underwriters Compensation Adjusted	12	6.12	2.05	2.00	9.00
Number of Underwriters	12	4.08	2.47	1.00	9.00
Threshold for Approval of Merger	12	37.17	25.19	20.00	90.00
Warrant Investment Founder	12	2.87	4.89	0.00	16.60
Warrant Price Paid	12	0.49	0.52	0.00	1.20
Unit Investment Founder	12	0.29	0.48	0.00	1.23
Warrant Strike Price	12	7.04	2.35	5.00	11.50
Warrants per Unit	12	1.25	0.45	1.00	2.00
Warrants adjusted	12	1.00	0.74	0.00	2.00
Unit Price IPO	12	8.68	1.78	6.00	10.10
High Price	12	8.13	3.61	0.52	15.50
Low Price	12	7.80	3.16	0.59	13.40
Average Daily Price	12	7.97	3.37	0.56	14.45
Maximum Share Price (Warrrant Exercise)	12	10.67	4.01	7.30	20.50
Minimum Share Price (Warrant Exercise)	12	4.70	3.43	1.00	10.00
Averag Share Price (Warrant Exercise)	12	7.68	2.17	4.85	11.38
Warrant Price adjusted	12	0.68	1.87	0.00	6.47
Unit Average Price	12	8.65	3.75	0.56	15.83
Warrant Value Adjusted	12	3.55	6.85	0.00	22.32
Unit Maximum Price	12	11.52	7.69	0.56	28.19

Panel B

		Mean	Std. Dev.	Min	Max
Total Underwriters Compensation Adjusted	12	6.12	2.05	2.00	9.00
Average Buy and Hold Unit Return	12	1.03	0.47	0.05	2.06
Maximum Buy and Hold Unit Return	12	1.46	1.21	0.05	4.70
SPAC Founders Average Buy and Hold Unit Retu	12	154.15	89.20	-11.00	304.25
SPAC Founders Maximum Buy and Hold Unit Re	12	211.55	167.06	-11.00	563.80

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